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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,750

08/25/2006

Mridula Kapur

63500A

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109 7590 08/14/2009

The Dow Chemical Company
Intellectual Property Section
P.O. Box 1967
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EXAMINER

LENIHAN, JEFFREY S

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

08/14/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,750	Applicant(s) KAPUR ET AL.	
	Examiner Jeffrey Lenihan	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the amendment filed on 4/13/2009.
2. The objections and rejections not addressed below are deemed withdrawn.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Rejections - 35 USC § 103

4. Claims 1, 3, 4, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al, US4461873, of record.

The rejection stands as per the reasons outlined in the previous Office Action, incorporated herein by reference.

5. Claims 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriguchi et al, US4536550.

The rejection under 35 U.S.C 103(a) stands as per the reasons outlined in the previous Office Action.

Response to Arguments

1. Applicant's arguments filed 04/13/2009 with respect to the rejection of claims over Bailey, US4461873, have been fully considered but they are not persuasive.
2. Applicant argues that the disclosure of Bailey that the molecular weight distribution, M_w/M_n , is less than 10 covers both homogeneous and heterogeneous

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branching and therefore does not disclose the claimed “homogenously branched polymer” or the numerical range of 1.5 to 3. Applicant further argues that Bailey prefers the use of polymers that have M_w/M_n in the range of 4-9 and are preferably prepared via methods that result in heterogeneous branching.

3. “A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments,” see *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.). It has also been held that “disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments,” see *In re Susi*, 440 F.2d 442, 169, USPQ 423 (CCPA 1971) (MPEP § 2123 [R-5]). Finally, in the case where claimed ranges overlap or lie inside ranges disclosed by the prior art, a *prima facie* case of obviousness exists, see *In re Wertheim*, 541 F.2d 257, 191, USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (MPEP § 2144.05 [R-5]).

4. As discussed in the previous Office Action, Bailey discloses that the high molecular weight component is characterized by M_w/M_n that is less than 10 (see Table I). Bailey’s preference for polymers having M_w/M_n in the range of 4-9 does not constitute a teaching away from the broader range disclosed by the reference. As the prior art range overlaps the claimed range of 1.5 to 3, it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare the film of Bailey using a high molecular weight polymer having the claimed M_w/M_n . The examiner notes that applicant states in paragraph 4, page 5 of the remarks filed on 04/13/2009

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that a molecular weight distribution of 1.5 to 3 corresponds to a homogeneously branched polymer. The examiner therefore maintains the position that it would have been obvious to one of ordinary skill in the art to prepare the claimed film in view of Bailey.

6. Applicant's arguments regarding the rejection of claims 5-16 over Moriguchi et al, US4536550 have been fully considered but they are not persuasive.

7. Applicant argues that Moriguchi does not teach compositions comprising specified amounts of a fraction having a molecular weight $\leq 10,000$ and specified amounts of a fraction having a molecular weight $\geq 1,000,000$. Applicant further argues that unexpected results are obtained from said compositions, and references the data from Table 2 of the specification as evidence of said results.

8. Regarding the composition containing specific amounts of each fraction, as discussed in paragraphs 24-25 of the Office Action mailed on 6/26/2008, Moriguchi discloses a composition comprising polyethylene A, having molecular weight of 5,000 to 90,000 and corresponding to the claimed fraction $\leq 10,000$; polyethylene B, having molecular weight from 50,000 to 500,000; and polyethylene C, having molecular weight from 100,000 to 1,500,000, corresponding to the claimed fraction $\geq 1,000,000$. The overall composition comprises 10-75% by weight polyethylene B and, by extension, 25-90% polyethylene A+ polyethylene C. Based on Moriguchi's teaching that the ratio of A:C falls in the range of 70:30 to 30:70, the amount of both A and C in the composition of Moriguchi would fall within the range of 7.5 to 66.5%. As the ranges for A and C overlap the claimed ranges for the fraction $\leq 10,000$ and $\geq 1,000,000$, the examiner

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maintains that it would have been obvious to prepare a composition having said fractions in view of Moriguchi.

9. Regarding applicant's arguments of unexpected results, the examiner notes that the combination of a fraction $\geq 1,000,000$ and a fraction $\leq 10,000$ is only recited in the dependent claims. Independent claim 5 only requires that the ethylene composition comprises a fraction having a molecular weight $\geq 1,000,000$; the claim does not require a fraction containing a molecular weight $\leq 10,000$. Conversely, independent claim 6 recites a composition containing a fraction having a molecular weight $\leq 10,000$, but does not recite the presence of a fraction having a molecular weight $\geq 1,000,000$. Applicant specifically states in the remarks filed 04/13/2009 (see page 6, paragraph 2, first sentence) that, as shown in Table 2, it is necessary to have both fractions in specific amounts to achieve the allegedly unexpected results. The examiner therefore takes the position that the allegedly unexpected results are not commensurate in scope with the independent claims as currently written.

10. Furthermore, the examiner notes that neither the specification text (Page 23, line 25 to page 28, line 21) nor Table 1, which recites characteristics of the example resins, discloses the amount of said fractions in any of inventive Example 1 and Comparative Examples 1 and 2. The examiner therefore cannot determine how the inventive example differs from the comparative examples in terms of the amount of each fraction present in the composition or whether applicant has demonstrated that the allegedly unexpected results could be obtained commensurate with broadest combination of fractions (currently recited in dependent claim 7). The examiner therefore takes the

position that there are currently insufficient grounds on record for withdrawing the rejection of claims over Moriguchi.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Lenihan whose telephone number is (571)270-5452. The examiner can normally be reached on Monday through Thursday from 7:30-5:00 PM, and on alternate Fridays from 7:30-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/
Primary Examiner, Art Unit 1796

Jeffrey Lenihan
Examiner, Art Unit 1796

/JL/